

a packet-switched network for transmitting said digital packets from said originating gateway computer to said terminating gateway computer, at least one of said originating and terminating gateway computers comprising a component for routing said digital packets through said packet-switched network from said originating gateway computer to said terminating gateway computer;

wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input,

wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data,

wherein at least one of said originating and terminating gateway computers comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer,

and wherein said originating gateway computer comprises a component for converting said return packets into second return signals.

11. (Twice Amended) A telecommunications system comprising:

an originating switched network for providing digital packets corresponding to originating signals produced in response to voice input,

a gateway computer that accepts out of band signaling and converts [for converting] said digital packets into packets of terminating signals,

a circuit-switched network for providing voice output in response to said terminating signals, and

a packet-switched network for transmitting said digital packets from said originating gateway network to said gateway computer, at least one of said originating network and said gateway computer comprising a component for routing said digital packets through said packet-switched network from said originating network to said gateway computer;

wherein said circuit-switched network is capable of providing first return signals to said gateway computer,

wherein said gateway computer comprises a component for converting said first return signals into packets of return digital date,

wherein at least one of said originating network and said gateway computer comprises a component for routing said return packets through said packet-switched network from said gateway computer to said originating network,

and wherein said originating network comprises a component for converting said return packets into second return signals.

22. (Three Times Amended) A telecommunications system comprising steps of:

providing originating digital packets for transmission from an originating network, said originating digital packets corresponding to originating signals produced in response to originating voice input;

routing said originating digital packets from said originating network to a gateway computer, that accepts out of band signaling, through a packet-switched network in response to an originating routing component in at least one of said originating network and said gateway computer;

converting said originating digital packets into terminating signals for transmission from said gateway computer;

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals;

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network;

converting said return signals into return digital packets of return digital data for transmission from said gateway computer;

routing said return digital packets through said packet-switched network from said gateway computer to said originating network in response to said originating routing component or another routing component in said originating network or said gateway computer;

and converting said return digital packets into second return signals.